Regional Haze Update

SIP Steering Committee Meeting
June 1, 2007
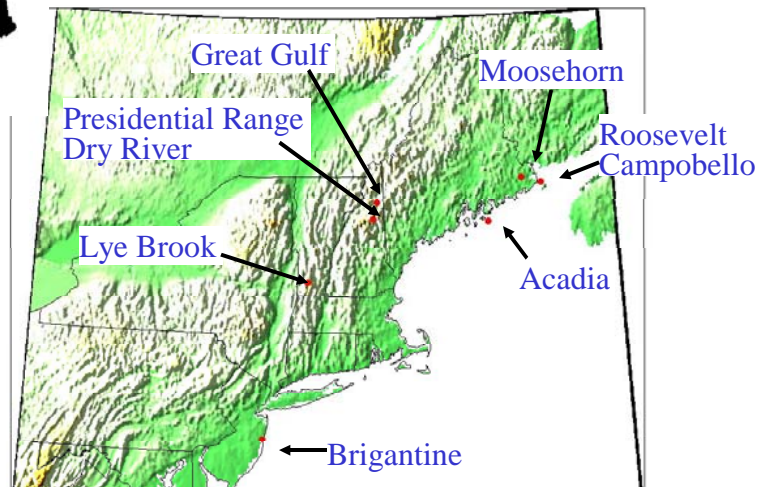
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What is Regional Haze?

- Visibility impairment caused by the cumulative emission of air pollutants from numerous sources over a wide geographic area

- The primary cause of visibility impairment is the scattering and absorbtion of light by fine particles

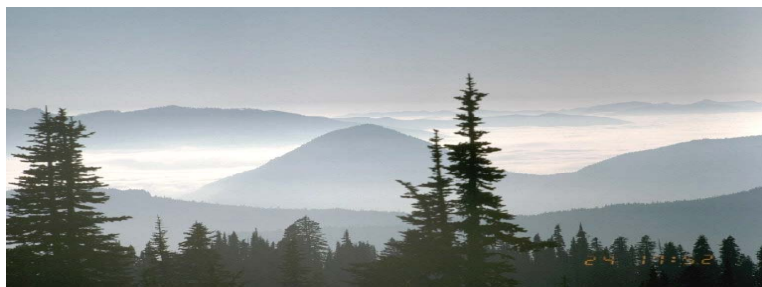# What is the Goal of the Regional Haze Program?

- To achieve natural background visibility conditions (pristine) in all Class I areas by 2064

    - 156 National Parks and Wilderness Areas of which 7 are in the MANE-VU region

Class I areas in the
MANEVU RPO Region

Core Requirements of Regional Haze Rule

- Calculation of Baseline & Natural Visibility Conditions
- Reasonable Progress Goal
- BART
- Long-term Strategy (control measures needed to achieve reasonable progress)

Baseline Visibility Conditions in Class I Areas

- Baseline Period is 2000-2004

- Average impairment for most and least impaired days for each area for each calendar year

- Compile the average of three annual averages

- Need the most representative available monitoring data

Natural Visibility Conditions for Class I Areas

- Data from most impaired days

- Data from least impaired days

- Use USEPA Guidance for estimating natural visibility con
  conditions in Class I area

Visibility in MANE-VU Class I Areas

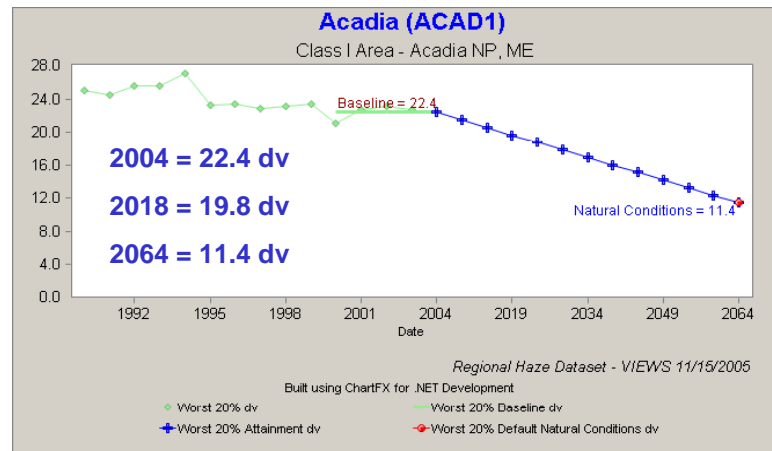|	Est Baseline Worst 20% Days (in deciviews)	Est. Natural Visibility Worst 20% Days (in deciviews)
Maine		
Acadia National Park	22.86	11.45
Moosehorn Wilderness	21.53	11.36
Roosevelt Campobello	21.53	11.37
New Hampshire		
Great Gulf Wilderness	TBD	11.30
Presidential Range	TBD	11.30
New Jersey		
Brigantine Wilderness	27.92	11.28
Vermont		
Lye Brook Wilderness	24.24	11.25

Determine Reasonable Progress Goal for Each Class I Area

- Establish baseline visibility (2000-2004)

- Estimate natural visibility conditions

- Estimate 2018 Goal (first milestone) to reach natural conditions in 2064

- Estimate emission reduction required to reach 2018 Goal

Reasonable Further Goal

Defines future visibility conditions that are equal to
or better than visibility conditions expected by a
uniform rate of progress at any future year until
natural conditions are met in 2064.

Reasonable Progress Goal Glidepath
for 20% Worst Days at Acadia Park

Reasonable Further Progress Goals

- Goals are set by the Class I states in consultation with contributing states and Federal Land Managers

- Four step process:

  Identify pollutants and associated source categories

  List Possible control measures

  Assess using a four factor analysis

  Assess impact from various strategies on the Class I areas

MANE-VU Process

1. Identify Pollutants of concern:

    Sulfates (SO2) of primary concern

    Organic Carbon - second largest contributor

(See Contribution Assessment-NESCAUM 2006 and
     MANE-VU Conceptual Model for Fine Particles and Regional Haze Air
     Quality Problems- NESCAUM 2006 at www.nescaum.org)

2. Identify Major Source Categories of these Pollutants

• Electric Generating Units

• Industrial, commercial and Institutional (ICI) boilers

• Cement Kilns

• Lime Kilns

• Distillate-oil fired heating units

• Residential wood combustion

2. Identify Where these Pollutants Come From

- Within the MANE-VU region
    - 70% of the 2.3 million tons of the 2002 SO2 base emissions in the region were from EGUs

- Impact from EGUs outside the MANE-VU region

- Woodsmoke impacts from within the MANE-VU region and Canada

3. Four Factor Analysis

• Costs of Compliance

• Time necessary for compliance

• Energy and non-air quality environmental impacts of compliance

• Remaining useful life of any existing source subject to such requirements

4. Assess impact of various control options on visibility

   Modeling underway by NESCAUM for MANE-VU

Results of Four Factor Analysis

Posted on www.marama.org

Reasonable Progress Goal Project Summary
(Executive Summary Handout)

Under consideration by MANE-VU as input into Class I
area Reasonable Further Progress Goal

Next Steps

Modeling Results

Consultation within MANEVU

Consultation with other Regional Planning Organizations

Input from Stakeholders